Jay L Zweier

List of Publications by Year
in descending order

301	23,969	9786 73	8630 146
papers	citations	h-index	g-index

305	305	305	22068
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A model for p53-induced apoptosis. Nature, 1997, 389, 300-305.	27.8	2,392
2	Reactive Oxygen Species (Ros-Induced) Ros Release. Journal of Experimental Medicine, 2000, 192, 1001-1014.	8.5	1,263
3	Enzyme-independent formation of nitric oxide in biological tissues. Nature Medicine, 1995, 1, 804-809.	30.7	727
4	Superoxide Generation from Endothelial Nitric-oxide Synthase. Journal of Biological Chemistry, 1998, 273, 25804-25808.	3.4	638
5	The role of oxidants and free radicals in reperfusion injury. Cardiovascular Research, 2006, 70, 181-190.	3.8	596
6	Noninvasive imaging of tumor redox status and its modification by tissue glutathione levels. Cancer Research, 2002, 62, 307-12.	0.9	547
7	Hearts From Rodents Exposed to Intermittent Hypoxia or Erythropoietin Are Protected Against Ischemia-Reperfusion Injury. Circulation, 2003, 108, 79-85.	1.6	533
8	S-glutathionylation uncouples eNOS and regulates its cellular and vascular function. Nature, 2010, 468, 1115-1118.	27.8	507
9	Measurement of Nitric Oxide and Peroxynitrite Generation in the Postischemic Heart. Journal of Biological Chemistry, 1996, 271, 29223-29230.	3.4	499
10	A Nonpeptidyl Mimic of Superoxide Dismutase with Therapeutic Activity in Rats. Science, 1999, 286, 304-306.	12.6	494
11	Validation of Lucigenin (Bis-N-methylacridinium) as a Chemilumigenic Probe for Detecting Superoxide Anion Radical Production by Enzymatic and Cellular Systems. Journal of Biological Chemistry, 1998, 273, 2015-2023.	3.4	478
12	Cardiac Mitochondria and Reactive Oxygen Species Generation. Circulation Research, 2014, 114, 524-537.	4.5	449
13	Nitrite as regulator of hypoxic signaling in mammalian physiology. Medicinal Research Reviews, 2009, 29, 683-741.	10.5	373
14	Inducible Nitric-oxide Synthase Generates Superoxide from the Reductase Domain. Journal of Biological Chemistry, 1998, 273, 22635-22639.	3.4	339
15	Non-enzymatic nitric oxide synthesis in biological systems. Biochimica Et Biophysica Acta - Bioenergetics, 1999, 1411, 250-262.	1.0	316
16	Measurement of Reactive Oxygen Species, Reactive Nitrogen Species, and Redox-Dependent Signaling in the Cardiovascular System. Circulation Research, 2016, 119, e39-75.	4.5	290
17	A Potent and Specific CD38 Inhibitor Ameliorates Age-Related Metabolic Dysfunction by Reversing Tissue NAD+ Decline. Cell Metabolism, 2018, 27, 1081-1095.e10.	16.2	238
18	Characterization of the Magnitude and Kinetics of Xanthine Oxidase-catalyzed Nitrite Reduction. Journal of Biological Chemistry, 2001, 276, 24482-24489.	3.4	237

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19	Nitric Oxide Production from Nitrite Occurs Primarily in Tissues Not in the Blood. Journal of Biological Chemistry, 2008, 283, 17855-17863.	3.4	235
20	On the selectivity of superoxide dismutase mimetics and its importance in pharmacological studies. British Journal of Pharmacology, 2003, 140, 445-460.	5.4	234
21	Chronic cigarette smoking causes hypertension, increased oxidative stress, impaired NO bioavailability, endothelial dysfunction, and cardiac remodeling in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H388-H396.	3.2	225
22	Evidence for the Pathophysiological Role of Endogenous Methylarginines in Regulation of Endothelial NO Production and Vascular Function. Journal of Biological Chemistry, 2007, 282, 879-887.	3.4	218
23	Neutrophils are primary source of O₂radicals during reperfusion after prolonged myocardial ischemia. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H2649-H2657.	3.2	211
24	Direct Measurement of Nitric Oxide Generation in the Ischemic Heart Using Electron Paramagnetic Resonance Spectroscopy. Journal of Biological Chemistry, 1995, 270, 304-307.	3.4	197
25	Detection of Reactive Oxygen and Nitrogen Species by EPR Spin Trapping. Antioxidants and Redox Signaling, 2004, 6, 619-629.	5.4	193
26	Substrate Control of Free Radical Generation from Xanthine Oxidase in the Postischemic Heart. Journal of Biological Chemistry, 1995, 270, 18797-18803.	3.4	187
27	Pulsed ESR Dipolar Spectroscopy for Distance Measurements in Immobilized Spin Labeled Proteins in Liquid Solution. Journal of the American Chemical Society, 2012, 134, 9950-9952.	13.7	179
28	Myocardial ischemia results in tetrahydrobiopterin (BH ₄) oxidation with impaired endothelial function ameliorated by BH ₄. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15081-15086.	7.1	175
29	Quantitative Measurement of Superoxide Generation Using the Spin Trap 5-(Diethoxyphosphoryl)-5-methyl- 1-pyrroline-N-oxide. Analytical Biochemistry, 1997, 247, 404-411.	2.4	172
30	Efficient Dynamic Nuclear Polarization at 800â€…MHz/527â€…GHz with Tritylâ€Nitroxide Biradicals. Angewandte Chemie - International Edition, 2015, 54, 11770-11774.	13.8	172
31	Characterization of the Magnitude and Kinetics of Xanthine Oxidase-Catalyzed Nitrate Reduction:Â Evaluation of Its Role in Nitrite and Nitric Oxide Generation in Anoxic Tissues. Biochemistry, 2003, 42, 1150-1159.	2.5	161
32	Decreased Nitric-oxide Synthase Activity Causes Impaired Endothelium-dependent Relaxation in the Postischemic Heart. Journal of Biological Chemistry, 1997, 272, 21420-21426.	3.4	156
33	Evaluation of the Magnitude and Rate of Nitric Oxide Production from Nitrite in Biological Systems. Archives of Biochemistry and Biophysics, 1998, 357, 1-7.	3.0	153
34	Myocardial Postischemic Injury Is Reduced by PolyADPribose Polymerase-1 Gene Disruption. Molecular Medicine, 2000, 6, 271-282.	4.4	147
35	Hydrogen peroxide and superoxide modulate leukocyte adhesion molecule expression and leukocyte endothelial adhesion. Biochimica Et Biophysica Acta - Molecular Cell Research, 1996, 1310, 251-259.	4.1	143
36	Novel particulate spin probe for targeted determination of oxygen in cells and tissues. Free Radical Biology and Medicine, 2003, 35, 1138-1148.	2.9	143

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37	Phosphorylation of Endothelial Nitric-oxide Synthase Regulates Superoxide Generation from the Enzyme. Journal of Biological Chemistry, 2008, 283, 27038-27047.	3.4	143
38	Characterization of the Effects of Oxygen on Xanthine Oxidase-mediated Nitric Oxide Formation. Journal of Biological Chemistry, 2004, 279, 16939-16946.	3.4	123
39	S-Glutathionylation Reshapes Our Understanding of Endothelial Nitric Oxide Synthase Uncoupling and Nitric Oxide/Reactive Oxygen Species-Mediated Signaling. Antioxidants and Redox Signaling, 2011, 14, 1769-1775.	5.4	123
40	Development of Chemiluminescence-Based Methods for Specific Quantitation of Nitrosylated Thiols. Analytical Biochemistry, 1998, 258, 322-330.	2.4	122
41	Sustained Activation of Nuclear Erythroid 2-Related Factor 2/Antioxidant Response Element Signaling Promotes Reductive Stress in the Human Mutant Protein Aggregation Cardiomyopathy in Mice. Antioxidants and Redox Signaling, 2011, 14, 957-971.	5.4	121
42	Genetic and hypoxic alterations of the micro <scp>RNA</scp> â€210â€•<scp>ISCU</scp> 1/2 axis promote ironâ€“sulfur deficiency and pulmonary hypertension. EMBO Molecular Medicine, 2015, 7, 695-713.	6.9	120
43	Biphasic Regulation of Leukocyte Superoxide Generation by Nitric Oxide and Peroxynitrite. Journal of Biological Chemistry, 2000, 275, 38965-38972.	3.4	119
44	Superoxide Generation from Mitochondrial NADH Dehydrogenase Induces Self-inactivation with Specific Protein Radical Formation. Journal of Biological Chemistry, 2005, 280, 37339-37348.	3.4	117
45	Endothelium-Derived Nitric Oxide Regulates Postischemic Myocardial Oxygenation and Oxygen Consumption by Modulation of Mitochondrial Electron Transport. Circulation, 2005, 111, 2966-2972.	1.6	116
46	Nitric Oxide Uptake by Erythrocytes Is Primarily Limited by Extracellular Diffusion Not Membrane Resistance. Journal of Biological Chemistry, 2002, 277, 26194-26199.	3.4	115
47	Characterization of the Mechanism and Magnitude of Cytoglobin-mediated Nitrite Reduction and Nitric Oxide Generation under Anaerobic Conditions. Journal of Biological Chemistry, 2012, 287, 36623-36633.	3.4	114
48	Mechanisms of nitrite reduction to nitric oxide in the heart and vessel wall. Nitric Oxide - Biology and Chemistry, 2010, 22, 83-90.	2.7	110
49	Cardiac Myocyteâ€“Specific Expression of Inducible Nitric Oxide Synthase Protects Against Ischemia/Reperfusion Injury by Preventing Mitochondrial Permeability Transition. Circulation, 2008, 118, 1970-1978.	1.6	109
50	Characterization of the Magnitude and Mechanism of Aldehyde Oxidase-mediated Nitric Oxide Production from Nitrite. Journal of Biological Chemistry, 2009, 284, 33850-33858.	3.4	104
51	A real-time electrochemical technique for measurement of cellular hydrogen peroxide generation and consumption: evaluation in human polymorphonuclear leukocytes. Free Radical Biology and Medicine, 2001, 31, 894-901.	2.9	101
52	Peroxynitrite Induces Destruction of the Tetrahydrobiopterin and Heme in Endothelial Nitric Oxide Synthase: Transition from Reversible to Irreversible Enzyme Inhibition. Biochemistry, 2010, 49, 3129-3137.	2.5	101
53	Direct measurement of myocardial free radical generation in an in vivo model: Effects of postischemic reperfusion and treatment with human recombinant superoxide dismutase. Journal of the American College of Cardiology, 1992, 20, 1604-1611.	2.8	98
54	Regulation of eNOS-Derived Superoxide by Endogenous Methylarginines. Biochemistry, 2008, 47, 7256-7263.	2.5	98

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55	Heme proteins mediate the conversion of nitrite to nitric oxide in the vascular wall. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 295, H499-H508.	3.2	96
56	Mitochondrial fission in endothelial cells after simulated ischemia/reperfusion: role of nitric oxide and reactive oxygen species. Free Radical Biology and Medicine, 2012, 52, 348-356.	2.9	96
57	Electron Paramagnetic Resonance Imaging of Rat Heart with Nitroxide and Polynitroxyl-Albumin. Biochemistry, 1996, 35, 7051-7057.	2.5	95
58	Hypoxia and Reoxygenation Induce Endothelial Nitric Oxide Synthase Uncoupling in Endothelial Cells through Tetrahydrobiopterin Depletion and S-Glutathionylation. Biochemistry, 2014, 53, 3679-3688.	2.5	95
59	Trityl Radicals as Persistent Dual Function pH and Oxygen Probes for in Vivo Electron Paramagnetic Resonance Spectroscopy and Imaging:Â Concept and Experiment. Journal of the American Chemical Society, 2007, 129, 7240-7241.	13.7	92
60	Reactive oxygen and nitrogen species regulate inducible nitric oxide synthase function shifting the balance of nitric oxide and superoxide production. Archives of Biochemistry and Biophysics, 2010, 494, 130-137.	3.0	92
61	Endogenous Methylarginines Modulate Superoxide as Well as Nitric Oxide Generation from Neuronal Nitric-oxide Synthase. Journal of Biological Chemistry, 2005, 280, 7540-7549.	3.4	90
62	Large-scale synthesis of a persistent trityl radical for use in biomedical EPR applications and imaging. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 6801-6805.	2.2	90
63	Targeting calcium transport in ischaemic heart disease. Cardiovascular Research, 2009, 84, 345-352.	3.8	90
64	Aldehyde Oxidase Functions as a Superoxide Generating NADH Oxidase: An Important Redox Regulated Pathway of Cellular Oxygen Radical Formation. Biochemistry, 2012, 51, 2930-2939.	2.5	85
65	Electron paramagnetic resonance oxygen mapping (EPROM): Direct visualization of oxygen concentration in tissue. Magnetic Resonance in Medicine, 2000, 43, 804-809.	3.0	84
66	Theoretical and Experimental Studies of the Spin Trapping of Inorganic Radicals by 5,5-Dimethyl-1-PyrrolineN-Oxide (DMPO). 1. Carbon Dioxide Radical Anion. Journal of Physical Chemistry A, 2006, 110, 13253-13258.	2.5	84
67	Heat-shock protein 90 augments neuronal nitric oxide synthase activity by enhancing Ca2+/calmodulin binding. Biochemical Journal, 2001, 355, 357-360.	3.7	81
68	Application of a trityl-based radical probe for measuring superoxide. Free Radical Biology and Medicine, 2003, 35, 1608-1618.	2.9	81
69	Bicarbonate Is Required for the Peroxidase Function of Cu,Zn-Superoxide Dismutase at Physiological pH. Journal of Biological Chemistry, 1999, 274, 1226-1232.	3.4	80
70	Kinetic Study and Theoretical Analysis of Hydroxyl Radical Trapping and Spin Adduct Decay of Alkoxycarbonyl and Dialkoxyphosphoryl Nitrones in Aqueous Media. Journal of Physical Chemistry A, 2003, 107, 4407-4414.	2.5	80
71	Characterization of superoxide production from aldehyde oxidase: An important source of oxidants in biological tissues. Archives of Biochemistry and Biophysics, 2007, 460, 113-121.	3.0	78
72	Theoretical and Experimental Studies of the Spin Trapping of Inorganic Radicals by 5,5-Dimethyl-1-Pyrroline N-Oxide (DMPO). 2. Carbonate Radical Anion. Journal of Physical Chemistry A, 2007, 111, 384-391.	2.5	78

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73	Heat shock protects cardiac cells from doxorubicin-induced toxicity by activating p38 MAPK and phosphorylation of small heat shock protein 27. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H2680-H2691.	3.2	76
74	Cytoglobin regulates blood pressure and vascular tone through nitric oxide metabolism in the vascular wall. Nature Communications, 2017, 8, 14807.	12.8	73
75	Three-dimensional spatial EPR imaging of the rat heart. Magnetic Resonance in Medicine, 1995, 34, 99-105.	3.0	72
76	In Vivo EPR Imaging of the Distribution and Metabolism of Nitroxide Radicals in Human Skin. Journal of Magnetic Resonance, 2001, 148, 155-164.	2.1	72
77	Quantitative Measurement of Superoxide Generation and Oxygen Consumption from Leukocytes Using Electron Paramagnetic Resonance Spectroscopy. Analytical Biochemistry, 1998, 257, 210-217.	2.4	71
78	Redox properties of ironâ€“dithiocarbamates and their nitrosyl derivatives: implications for their use as traps of nitric oxide in biological systems. Biochimica Et Biophysica Acta - General Subjects, 2000, 1474, 365-377.	2.4	70
79	Reactivity of Superoxide Radical Anion with Cyclic Nitrones:Â Role of Intramolecular H-Bond and Electrostatic Effects. Journal of the American Chemical Society, 2007, 129, 8177-8191.	13.7	70
80	Heat-shock protein 90 augments neuronal nitric oxide synthase activity by enhancing Ca2+/calmodulin binding. Biochemical Journal, 2001, 355, 357.	3.7	68
81	Development of a PEDRI free-radical imager using a 0.38 T clinical MRI system. Magnetic Resonance in Medicine, 2002, 47, 181-186.	3.0	66
82	Superoxide Induces Endothelial Nitric-oxide Synthase Protein Thiyl Radical Formation, a Novel Mechanism Regulating eNOS Function and Coupling. Journal of Biological Chemistry, 2011, 286, 29098-29107.	3.4	66
83	Electron paramagnetic resonance spectroscopy with N-methyl-D-glucamine dithiocarbamate iron complexes distinguishes nitric oxide and nitroxyl anion in a redox-dependent manner: applications in identifying nitrogen monoxide products from nitric oxide synthase. Free Radical Biology and Medicine, 2000, 29, 793-797.	2.9	64
84	Characterization of the Mechanism of Cytochrome P450 Reductase-Cytochrome P450-mediated Nitric Oxide and Nitrosothiol Generation from Organic Nitrates. Journal of Biological Chemistry, 2006, 281, 12546-12554.	3.4	63
85	Synthesis and Characterization of Ester-Derivatized Tetrathiatriarylmethyl Radicals as Intracellular Oxygen Probes. Journal of Organic Chemistry, 2008, 73, 1490-1497.	3.2	62
86	Role of Dietary Antioxidants in the Preservation of Vascular Function and the Modulation of Health and Disease. Frontiers in Cardiovascular Medicine, 2017, 4, 64.	2.4	62
87	In vivo topical EPR spectroscopy and imaging of nitroxide free radicals and polynitroxyl-albumin. Magnetic Resonance in Medicine, 1998, 40, 806-811.	3.0	61
88	Vascular NAD(P)H oxidase is distinct from the phagocytic enzyme and modulates vascular reactivity control. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H658-H667.	3.2	61
89	Cardiac applications of EPR imaging. NMR in Biomedicine, 2004, 17, 226-239.	2.8	60
90	Xanthine Oxidase Catalyzes Anaerobic Transformation of Organic Nitrates to Nitric Oxide and Nitrosothiols. Journal of Biological Chemistry, 2005, 280, 16594-16600.	3.4	60

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91	Protein Tyrosine Nitration of the Flavin Subunit Is Associated with Oxidative Modification of Mitochondrial Complex II in the Post-ischemic Myocardium. Journal of Biological Chemistry, 2008, 283, 27991-28003.	3.4	60
92	Electron paramagnetic resonance evidence that cellular oxygen toxicity is caused by the generation of superoxide and hydroxyl free radicals. FEBS Letters, 1989, 252, 12-16.	2.8	59
93	Redox Modulation of Endothelial Nitric Oxide Synthase by Glutaredoxin-1 through Reversible Oxidative Post-Translational Modification. Biochemistry, 2013, 52, 6712-6723.	2.5	59
94	Characterization of the binding of the Finland trityl radical with bovine serum albumin. RSC Advances, 2014, 4, 47649-47656.	3.6	59
95	Synthesis and Characterization of Amino Derivatives of Persistent Trityl Radicals as Dual Function pH and Oxygen Paramagnetic Probes. Journal of the American Chemical Society, 2008, 130, 10780-10787.	13.7	58
96	Synthesis of ¹⁴N- and ¹⁵N-labeled Trityl-nitroxide Biradicals with Strong Spinâ^'Spin Interaction and Improved Sensitivity to Redox Status and Oxygen. Journal of Organic Chemistry, 2010, 75, 7796-7802.	3.2	58
97	Trityl-nitroxide biradicals as unique molecular probes for the simultaneous measurement of redox status and oxygenation. Chemical Communications, 2010, 46, 628-630.	4.1	58
98	In vivo imaging of free radicals: Applications from mouse to man. Molecular and Cellular Biochemistry, 2002, 234/235, 359-367.	3.1	57
99	In vivomeasurement of arterial and venous oxygenation in the rat using 3D spectral-spatial electron paramagnetic resonance imaging. Physics in Medicine and Biology, 1998, 43, 1837-1844.	3.0	56
100	EPR/NMR co-imaging for anatomic registration of free-radical images. Magnetic Resonance in Medicine, 2002, 47, 571-578.	3.0	56
101	Characterization of the Function of Cytoglobin as an Oxygen-Dependent Regulator of Nitric Oxide Concentration. Biochemistry, 2012, 51, 5072-5082.	2.5	56
102	Silver-Zinc Redox-Coupled Electroceutical Wound Dressing Disrupts Bacterial Biofilm. PLoS ONE, 2015, 10, e0119531.	2.5	56
103	High resolution electron paramagnetic resonance imaging of biological samples with a single line paramagnetic label. Magnetic Resonance in Medicine, 1997, 37, 479-483.	3.0	55
104	Endogenous Methylarginines Regulate Neuronal Nitric-oxide Synthase and Prevent Excitotoxic Injury. Journal of Biological Chemistry, 2002, 277, 33995-34002.	3.4	55
105	Proton electron double resonance imaging of the in vivo distribution and clearance of a triaryl methyl radical in mice. Magnetic Resonance in Medicine, 2002, 48, 530-534.	3.0	55
106	Is reduced SERCA2a expression detrimental or beneficial to postischemic cardiac function and injury? Evidence from heterozygous SERCA2a knockout mice. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H1426-H1434.	3.2	55
107	Esterified trityl radicals as intracellular oxygen probes. Free Radical Biology and Medicine, 2009, 46, 876-883.	2.9	55
108	Role of heat shock factor-1 activation in the doxorubicin-induced heart failure in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H1832-H1841.	3.2	55

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109	Nitric Oxide and Peroxynitrite in Postischemic Myocardium. Antioxidants and Redox Signaling, 2001, 3, 11-22.	5.4	53
110	In vivo proton electron double resonance imaging of the distribution and clearance of nitroxide radicals in mice. Magnetic Resonance in Medicine, 2006, 55, 669-675.	3.0	53
111	Removal of H2O2 and generation of superoxide radical: Role of cytochrome c and NADH. Free Radical Biology and Medicine, 2011, 51, 160-170.	2.9	53
112	HSP27 regulates p53 transcriptional activity in doxorubicin-treated fibroblasts and cardiac H9c2 cells: p21 upregulation and G₂/M phase cell cycle arrest. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H1736-H1744.	3.2	52
113	Trityl-based EPR probe with enhanced sensitivity to oxygen. Free Radical Biology and Medicine, 2009, 47, 654-658.	2.9	52
114	Preclinical Development of a vWF Aptamer to Limit Thrombosis and Engender Arterial Recanalization of Occluded Vessels. Molecular Therapy, 2019, 27, 1228-1241.	8.2	52
115	Fast Reactivity of a Cyclic Nitroneâ˜Calix[4]pyrrole Conjugate with Superoxide Radical Anion: Theoretical and Experimental Studies. Journal of the American Chemical Society, 2010, 132, 17157-17173.	13.7	50
116	Differences in oxygenâ€dependent nitric oxide metabolism by cytoglobin and myoglobin account for their differing functional roles. FEBS Journal, 2013, 280, 3621-3631.	4.7	50
117	In Vivo Protonâ€“Electron Double-Resonance Imaging of Extracellular Tumor pH Using an Advanced Nitroxide Probe. Analytical Chemistry, 2014, 86, 1045-1052.	6.5	50
118	Endothelial nitric oxide synthase uncoupling: A novel pathway in OSA induced vascular endothelial dysfunction. Respiratory Physiology and Neurobiology, 2015, 207, 40-47.	1.6	50
119	Spatial mapping of nitric oxide generation in the ischemic heart using electron paramagnetic resonance imaging. Magnetic Resonance in Medicine, 1996, 36, 212-218.	3.0	49
120	Involvement of protein radical, protein aggregation, and effects on NO metabolism in the hypochlorite-mediated oxidation of mitochondrial cytochrome c. Free Radical Biology and Medicine, 2004, 37, 1591-1603.	2.9	49
121	Depletion of NADP(H) due to CD38 activation triggers endothelial dysfunction in the postischemic heart. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11648-11653.	7.1	49
122	The Radical Trap 5,5-Dimethyl-1-PyrrolineN-Oxide Exerts Dose-Dependent Protection against Myocardial Ischemia-Reperfusion Injury through Preservation of Mitochondrial Electron Transport. Journal of Pharmacology and Experimental Therapeutics, 2009, 329, 515-523.	2.5	48
123	Regulation of FMN Subdomain Interactions and Function in Neuronal Nitric Oxide Synthase. Biochemistry, 2009, 48, 3864-3876.	2.5	48
124	Determination of the enhancing action of HSP90 on neuronal nitric oxide synthase by EPR spectroscopy. American Journal of Physiology - Cell Physiology, 2001, 281, C1819-C1824.	4.6	47
125	In vivo measurement of tumor redox environment using EPR spectroscopy. Molecular and Cellular Biochemistry, 2002, 234/235, 393-398.	3.1	47
126	Dose dependent effects of reactive oxygen and nitrogen species on the function of neuronal nitric oxide synthase. Archives of Biochemistry and Biophysics, 2008, 471, 126-133.	3.0	47

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127	Characterization of CD38 in the major cell types of the heart: endothelial cells highly express CD38 with activation by hypoxia-reoxygenation triggering NAD(P)H depletion. American Journal of Physiology - Cell Physiology, 2018, 314, C297-C309.	4.6	47
128	Electrochemical Preparation and EPR Studies of Lithium Phthalocyanine. 3. Measurements of Oxygen Concentration in Tissues and Biochemical Reactions. Journal of Physical Chemistry B, 2001, 105, 5323-5330.	2.6	46
129	Direct and Indirect Roles of Cytochrome b in the Mediation of Superoxide Generation and NO Catabolism by Mitochondrial Succinate-Cytochrome c Reductase. Journal of Biological Chemistry, 2006, 281, 13159-13168.	3.4	46
130	In vivo measurement and mapping of skin redox stress induced by ultraviolet light exposure. Free Radical Biology and Medicine, 2004, 36, 665-672.	2.9	45
131	Highly stable dendritic trityl radicals as oxygen and pH probe. Chemical Communications, 2008, , 4336.	4.1	45
132	Measurement and Characterization of Superoxide Generation from Xanthine Dehydrogenase: A Redox-Regulated Pathway of Radical Generation in Ischemic Tissues. Biochemistry, 2014, 53, 6615-6623.	2.5	45
133	Measurement of oxygen concentrations in the intact beating heart using electron paramagnetic resonance spectroscopy: A technique for measuring oxygen concentrationsin situ. Journal of Bioenergetics and Biomembranes, 1991, 23, 855-871.	2.3	44
134	Fast EPR imaging at 300MHz using spinning magnetic field gradients. Journal of Magnetic Resonance, 2004, 168, 220-227.	2.1	44
135	Estimation of Nitric Oxide Concentration in Blood for Different Rates of Generation. Journal of Biological Chemistry, 2007, 282, 8831-8836.	3.4	44
136	Tetrathiatriarylmethyl radical with a single aromatic hydrogen as a highly sensitive and specific superoxide probe. Free Radical Biology and Medicine, 2012, 53, 2081-2091.	2.9	43
137	Luteolinidin Protects the Postischemic Heart through CD38 Inhibition with Preservation of NAD(P)(H). Journal of Pharmacology and Experimental Therapeutics, 2017, 361, 99-108.	2.5	43
138	Superoxide radical trapping and spin adduct decay of 5-tert-butoxycarbonyl-5-methyl-1-pyrroline N-oxide (BocMPOThe acronym BocMPO will be used instead of BMPO to distinguish it from the BMPO) Tj ETQq0 0 0 rgBT /Overlock 10 T , 1340-1344.	1.1	42
139	Ischemic preconditioning prevents in vivo hyperoxygenation in postischemic myocardium with preservation of mitochondrial oxygen consumption. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H1442-H1450.	3.2	42
140	A forwardâ€subtraction procedure for removing hyperfine artifacts in electron paramagnetic resonance imaging. Magnetic Resonance in Medicine, 1996, 35, 316-322.	3.0	41
141	Reaction of superoxide with trityl radical: implications for the determination of superoxide by spectrophotometry. Archives of Biochemistry and Biophysics, 2004, 424, 81-88.	3.0	41
142	Synthesis, structure, and EPR characterization of deuterated derivatives of Finland trityl radical. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 3946-3949.	2.2	41
143	Hydrogen Peroxide Decreases pH_iin Human Aortic Endothelial Cells by Inhibiting Na⁺/H⁺Exchange. Circulation Research, 1998, 83, 644-651.	4.5	39
144	Whole body detection and imaging of nitric oxide generation in mice following cardiopulmonary arrest: Detection of intrinsic nitrosoheme complexes. Magnetic Resonance in Medicine, 2001, 45, 700-707.	3.0	39

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145	eNOS is required for acute in vivo ischemic preconditioning of the heart: effects of ischemic duration and sex. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H437-H445.	3.2	39
146	Reactivity of Molecular Oxygen with Ethoxycarbonyl Derivatives of Tetrathiatriarylmethyl Radicals. Journal of Organic Chemistry, 2006, 71, 7268-7279.	3.2	38
147	Synthesis of Trityl Radical-Conjugated Disulfide Biradicals for Measurement of Thiol Concentration. Journal of Organic Chemistry, 2011, 76, 3853-3860.	3.2	38
148	Long-term electronic cigarette exposure induces cardiovascular dysfunction similar to tobacco cigarettes: role of nicotine and exposure duration. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 320, H2112-H2129.	3.2	38
149	Synergistic, aqueous PAH degradation by ultrasonically-activated persulfate depends on bulk temperature and physicochemical parameters. Ultrasonics Sonochemistry, 2020, 67, 105172.	8.2	38
150	Threeâ€Dimensional gated EPR imaging of the beating heart: Timeâ€resolved measurements of free radical distribution during the cardiac contractile cycle. Magnetic Resonance in Medicine, 1996, 35, 323-328.	3.0	37
151	The open molecular framework of paramagnetic lithium octabutoxy-naphthalocyanine: implications for the detection of oxygen and nitric oxide using EPR spectroscopy. Journal of Materials Chemistry, 2006, 16, 3609.	6.7	37
152	Nitric Oxide Diffusion Rate is Reduced in the Aortic Wall. Biophysical Journal, 2008, 94, 1880-1889.	0.5	37
153	Development of a hybrid EPR/NMR coimaging system. Magnetic Resonance in Medicine, 2007, 58, 156-166.	3.0	36
154	In Situ EPR Spin Trapping and Competition Kinetics Demonstrate Temperature-Dependent Mechanisms of Synergistic Radical Production by Ultrasonically Activated Persulfate. Environmental Science & Technology, 2022, 56, 3729-3738.	10.0	34
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